EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	5001	transformer and capacitor and (high with pass) and (low with pass)	US-PGPUB; USPAT	OR	ON	2006/12/11 08:07
L3	954	1 and (band with pass with filter)	US-PGPUB; USPAT	OR	ON	2006/12/11 08:02
L4	41	3 and (transformer with spirals)	US-PGPUB; USPAT	OR	ON	2006/12/11 08:02
L5	18	4 and @ad<"20020222"	US-PGPUB; USPAT	OR	ON	2006/12/11 08:17
L8	1586	transformer and capacitor and (high with pass) and (low with pass)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/12/11 08:02
L15	12094	(transformer and capacitor and (high with pass with filter$3) and (low with pass with filter$3) and spirals (band near3 pass)).clm.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:11
L18	1	(transformer and capacitor and (high with pass with filter$3) and (low with pass with filter$3) and spirals and (band near3 pass) and cascad$3).clm.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:15
L19	1	(transformer and capacitor and (high with pass with filter$3) and (low with pass with filter$3) and spirals and (band near3 pass)). clm.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:17
L20	2	(transformer and capacitor and (high with pass) and (low with pass) and (band near3 pass) and cascad$3).clm.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:16
L21	1836	257/528,532.ccls.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:20
L22	42	21 and @ad<"20020222" and transformer and capacitor	US-PGPUB; USPAT	OR	ON	2006/12/11 08:50
L23	15	22 and pass	US-PGPUB; USPAT	OR	ON	2006/12/11 08:18
L24	263	257/E27.001,E27.017,E27.024. ccls.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:18
L26	6	24 and transformer and capacitor	US-PGPUB; USPAT	OR	ON	2006/12/11 08:19
L29	744	438/381.ccls.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:50

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L30	13	29 and @ad<"20020222" and transformer and capacitor	US-PGPUB; USPAT	OR	ON	2006/12/11 08:51
L31	1398	455/73,80,280,272.ccls.	US-PGPUB; USPAT	OR	ON	2006/12/11 08:51
L32	37	31 and @ad<"20020222" and transformer and capacitor	US-PGPUB; USPAT	OR	ON	2006/12/11 08:51

DOCUMENT-IDENTIFIER: US 20050095791 A1

TITLE: Integration of filters using on-chip transformers for rf and wireless applications

---------- KWIC ---------- the current application

Claims Text - CLTX (1):
1. A **band pass filter** formed on an integrated circuit (IC) chip, said **band pass filter** comprising: a **transformer** capable of receiving an input signal and providing **high pass filtering, said transformer** comprising at least a pair of metallic **spirals** formed on the IC chip; and a **capacitor** capable of receiving said input signal and providing **low pass filtering** in conjunction with an inductance of the **transformer, wherein said band pass filter provides band pass filtering** through cascading said **high pass and low pass filtering**.

Claims Text - CLTX (2):
2. The **band pass** filter of claim 1, further comprising a plurality of **band pass filter stages, each band pass** filter stage comprising a **capacitor and a transformer** comprising a pair of metallic **spirals** formed on the IC chip, wherein said **band pass** filter stages are cascaded to form the **band pass** filter.

Claims Text - CLTX (3):
3. The **band pass** filter of claim 1, wherein said metallic **spirals** comprise copper **spirals**.

Claims Text - CLTX (4):
4. The **band pass** filter of claim 1, wherein the **transformer** comprises a pair of **transformers** arrayed in series, wherein each **transformer** comprises a pair of metallic **spirals**.

Claims Text - CLTX (5):
5. The **band pass** filter of claim 1, wherein the metallic **spirals** are co-planer and have been inter-wound to form the **transformer** on the IC chip.

Claims Text - CLTX (6):
6. The **band pass** filter of claim 1, wherein the metallic **spirals** are stacked, one on top of the other, to form the **transformer** on the IC chip.

Claims Text - CLTX (7):

7. The **band pass** filter of claim 6, wherein the metallic **spirals** are separated by a dielectric material disposed therebetween.

Claims Text - CLTX (8):
8. The **band pass** filter of claim 7, wherein the dielectric material comprises silicon dioxide.

Claims Text - CLTX (9):
9. The **band pass** filter of claim 1, wherein communication circuitry is formed on the same IC chip as the transformed and the **capacitor**.

Claims Text - CLTX (10):
10. The **band pass** filter of claim 1, wherein a transformation ratio of the **transformer** is between approximately 1:1 and approximately 1:2.

Claims Text - CLTX (11):
11. The **band pass** filter of claim 1, wherein the IC chip comprises a silicon substrate.

Claims Text - CLTX (12):
12. The **band pass** filter of claim 1, wherein the metallic **spirals** have a substantially rectangular or square overall shape.

Claims Text - CLTX (13):
13. A communication system-on-chip (SOC) comprising communication circuitry and a **band pass filter** formed on an integrated circuit (IC) chip, said **band pass filter** comprising: a **transformer** capable of receiving an input signal and providing **high pass filtering, said transformer** comprising at least a pair of metallic **spirals** formed on the IC chip; and a **capacitor** capable of receiving said input signal and providing **low pass filtering** in conjunction with an inductance of the **transformer, wherein said band pass filter provides band pass filtering** through cascading said **high pass and low pass filtering**.

Claims Text - CLTX (14):
14. The communication SOC of claim 13, wherein the **band pass filter further comprises a plurality of band pass filter stages, each band pass** filter stage comprising a **capacitor and a transformer** comprising a pair of metallic **spirals** formed on the IC chip, wherein said **band pass** filter stages are cascaded to form the **band pass** filter.

Claims Text - CLTX (15):
15. The communication SOC of claim 13, wherein said metallic **spirals**

comprise copper **spirals**.

Claims Text - CLTX (16):
16. The communication SOC of claim 13, wherein the **transformer** comprises a pair of **transformers** arrayed in series, wherein each **transformer** comprises a pair of metallic **spirals**.

Claims Text - CLTX (17):
17. The communication SOC of claim 13, wherein the metallic **spirals** are co-planer and have been inter-wound to form the **transformer** on the IC chip.

Claims Text - CLTX (18):
18. The communication SOC of claim 13, wherein the metallic **spirals** are stacked, one on top of the other, to form the **transformer** on the IC chip.

Claims Text - CLTX (19):
19. The communication SOC of claim 18, wherein the metallic **spirals** are separated by a dielectric material disposed therebetween.

Claims Text - CLTX (21):
21. The communication SOC of claim 13, wherein a transformation ratio of the **transformer** is between approximately 1:1 and approximately 1:2.

Claims Text - CLTX (22):
22. A communication device comprising: a communication system-on-chip (SOC) comprising communication circuitry and a **band pass filter** formed on an integrated circuit (IC) chip, said **band pass filter** comprising: a **transformer** capable of receiving an input signal and providing **high pass filtering, said transformer** comprising at least a pair of metallic **spirals** formed on the IC chip; and a **capacitor** capable of receiving said input signal and providing **low pass filtering** in conjunction with an inductance of the **transformer, wherein said band pass filter provides band pass filtering** through cascading said **high pass and low pass filtering**.

Claims Text - CLTX (23):
23. The communication device of claim 22, wherein the **band pass filter further comprises a plurality of band pass filter stages, each band pass** filter stage comprising a **capacitor and a transformer** comprising a pair of metallic **spirals** formed on the IC chip, wherein said **band pass** filter stages are cascaded to form the **band pass** filter.

Claims Text - CLTX (24):

24. The communication device of claim 22, wherein said metallic **spirals** comprise copper **spirals**.

Claims Text - CLTX (25):
25. The communication device of claim 22, wherein the **transformer** comprises a pair of **transformers** arrayed in series, wherein each **transformer** comprises a pair of metallic **spirals**.

Claims Text - CLTX (26):
26. The communication device of claim 22, wherein the metallic **spirals** are co-planer and have been inter-wound to form the **transformer** on the IC chip.

Claims Text - CLTX (27):
27. The communication device of claim 22, wherein the metallic **spirals** are stacked, one on top of the other, to form the **transformer** on the IC chip.

Claims Text - CLTX (28):
28. The communication device of claim 27, wherein the metallic **spirals** are separated by a dielectric material disposed therebetween.

Claims Text - CLTX (30):
30. The communication device of claim 22, wherein a transformation ratio of the **transformer** is between approximately 1:1 and approximately 1:2.